IN THE UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY

ADASA INC.,	§	
	§	
Plaintiff,	§	
	§	CIVIL ACTION NO. _____
v.	§	
	§	**JURY TRIAL DEMANDED**
CCL Industries Inc.	§	
(d/b/a Checkpoint Systems, Inc.),	§	
	§	
Defendant.	§	
	§	

PLAINTIFF'S ORIGINAL COMPLAINT

Plaintiff ADASA INC. ("Plaintiff" or "ADASA") files this Original Complaint against Defendant CCL INDUSTRIES, INC. ("CCL" or "Defendant") alleging as follows:

I. THE PARTIES

1. ADASA INC. is a corporation organized and existing under the laws of the State of Oregon, with a principal place of business in Eugene, Oregon.

2. CCL INDUSTRIES, INC. is a foreign corporation organized and existing under the laws of Canada, with a principal place of business in Toronto, Ontario, Canada. As set forth below, CGL does business in West Deptford Township, N.J.

II. JURISDICTION AND VENUE

3. Plaintiff's claims for patent infringement against CCL arise under the patent laws of the United States, including 35 U.S.C. §§ 271 and 281. Consequently, this Court has exclusive jurisdiction of such action under Title 28 U.S.C. § 1331 and 1338.

4. CCL is a foreign, public corporation whose corporate offices are located outside of the United States in Canada. CCL's headquarters are located at 111 Gordon Baker Road, Suite

801, North York, Ontario, Canada M2H 3R1. CCL also operates a U.S. office location at 161 Worcester Road, Suite 403, Framingham, Massachusetts 01701.[1]

5. CCL's business is divided by product offering amongst several divisions. Its Checkpoint division, operated as Checkpoint Systems Inc., manufactures and sells hardware and software products and services for item-level radio frequency identification (RFID) tagging of consumer products, and other RFID products and services.[2] [3] The headquarters for the Checkpoint division is located in this District, in West Deptford Township at 101 Wolf Drive, Thorofare, New Jersey 08086.

6. Upon information and belief, the Accused Products described herein, which comprise encoded RFID tags commonly used for item-level product tagging, are developed and/or sold from CCL's office locations in the U.S. These locations include, at least, CCL's offices in Framingham, Massachusetts and the headquarters of CCL's Checkpoint division located within this District. Some of those products are then sold and/or imported throughout the U.S., including to retailers and other end users conducting business within this District, by CCL and/or its wholesalers and distributors.

7. CCL has sufficient minimum contacts with the District of New Jersey such that this venue is fair and reasonable. CCL has committed such purposeful acts and/or transactions in this District that it reasonably should know and expect that they could be hailed into this Court as a consequence of such activity, including maintaining its headquarters for its Checkpoint division within this District, and by selling its Accused Products from this District and to customers within

[1] See Company Contact information at URL: https://cclind.com/.
[2] See Company Description for CCL Industries provided to potential investors through the Toronto Stock Exchange at URL: https://money.tmx.com/en/quote/CCL.B.
[3] See Checkpoint Systems website at URL https://checkpointsystems.com/who-we-are/ ("A Division of CCL Industries Inc.").

this District. CCL has transacted and, at the time of the filing of this Original Complaint, continues to transact business within the District of New Jersey.

8. For these reasons, personal jurisdiction exists, and venue is proper in this Court under 28 U.S.C. §§ 1391(b) and (c) and 28 U.S.C. § 1400(b), respectively.

III. BACKGROUND OF ADASA AND THE '967 PATENT

9. Mr. McAllister has worked with and in the RFID industry since the early 1990s, including founding his own RFID company, ADASA, in 2004.

10. At the time McAllister founded ADASA, the RFID industry was beginning to challenge the then-predominant method of using individual bar codes to keep track of merchandise. The industry has since developed standards and guidelines for encoding data onto the RFID tags to provide additional information beyond what can be stored in a barcode, which allows for identifying and tracking individual items in the supply chain.

11. As a brief technical background, in the RFID industry, and particularly for item-level merchandise tracking applications, the memory bank of an RFID tag is encoded with an Electronic Product Code ("EPC"), which is an identifier for an item in the supply chain to uniquely identify that particular item. This identifier is serialized to be unique for avoidance of duplicate numbers among items in the supply chain. The EPC can be in a format in accordance with one of various EPC tag data standards set by GS1 for a serialized identifier, such as a Serialized Global Trade Item Number (SGTIN), Serial Shipping Container Code (SSCC), Serial Global Location Number (SGLN), or the like.

12. For the SGTIN format, the EPC contains "object class" information and a "serial number." The "object class" information includes, among other things, a GS1 "company prefix," which identifies the managing organization responsible for the item (*i.e.*, the brand owner) and an

"item reference number" which identifies the class of item offered by a brand owner (which generally corresponds to the UPC or SKU of a bar code).

13. The "object class" information of the SGTIN is not unique in and of itself. The function of this section of a SGTIN format is to identify different types of products that may be sold by a particular brand owner. For example, a brand owner (such as Macys or JC Penny) may assign a particular product line of its men's pants an "object class" number. With such a designation, each pair of that type of men's pants would have a common "object class" number, but each specific pair of men's pants within that type would not be unique without further identification. Therefore, in order to provide a unique identifier and avoid duplication of numbers, the brand owner is responsible for assigning a unique serial number for each item within an object class. The brand owner can delegate the assignment of the serial number to another party or parties, however the brand owner retains ultimate responsibility for managing assignment of the serial number. The combination of an object class and unique serial number provides a unique object number that is contained within the EPC.

14. In early 2008, McAllister recognized the challenge in the industry that there was not a reliable way to ensure global uniqueness of the EPC for items within one object class when the RFID tags are encoded by different encoders in different locations across the distribution chain. Prior to Mr. McAllister's invention, other methods of managing and assigning EPCs did not provide the level of specificity in managing the assignment of the EPCs taught in the '967 Patent or ensure that the EPC provided to an item would be globally unique without requiring real-time access to a central database to assign the next available unique EPC to each item in an object class.

15. This is exemplified by the RFID industry's use of the "EPC Pure Identity URI" methodology. The EPC Pure Identity is what is known as a canonical form, using a finite sequence

of decimal digits, punctuated by periods. In this format, no attention is given to managing the uniqueness of the EPC on the "binary" level (*i.e.*, at the zeroes and ones that make up the most basic bits of the code at the machine level), rather choosing a simpler and less effective "decimal" or "hexadecimal" level representation of the EPC that is in a human readable format. For example, a "decimal" EPC Pure Identity URI may read as follows:

0017457.057157.338690212

The "binary" representation for this data when encoded in SGTIN-96 format into an RFID tag would be:

00110000001101000000000100010000110001000011011111010001010000000001010000011000000000000010100100

The EPC Pure Identity lacks the ability to provide information that uniquely distinguishes between objects of the same object class that, for example, are encoded at one manufacturing facility versus another, unless that information is specifically tracked in a database.

16. To address this challenge, McAllister focused not on the Pure Identity representation of the EPC, but rather more specifically on the binary representation of the EPC. He sought to implement a data structure within the memory of an RFID tag for capturing this type of information, which could operate to ensure uniqueness of an encoded RFID tag. Mr. McAllister developed a memory structure that put to use the higher order bits among those reserved for storing serial number data by configuring those bits for storage of a "most significant bits" ("MSB") sequence. Accordingly, Mr. McAllister's memory structure accommodated storing of information within the memory reserved for storing of a serial identifier value in addition to storing the serial identifier value.

17. In particular, as an example of McAllister's invention, an RFID integrated circuit chip encoded with the SGTIN-96 format has a total of 96 binary bits in its memory bank, with the last 38 bits reserved for storing a "serial number" identifier value:

A typical EPC SGTIN-96 Structure:

Header	Filter / Object Type	Partition	Company Prefix	Item Ref and Indicator	Serial
8 bits	3 bits	3 bits	20- 40 bits	24 - 4 bits	38 bits

McAllister's invention configures an RFID integrated circuit chip's memory structure to store a sequence of most significant bits at the leading bits of the 38-bit memory space reserved for storing a serial identifier value. The remaining bits within this 38-bit memory space would still be used to store a serial identifier value.

18. In an embodiment, McAllister envisioned using the leading bits of the serial number memory space storing an MSB sequence as part of a larger system in which a brand owner could ensure uniqueness for encoded RFID tags by uniquely correlating a distinct MSB sequence to each encoding device within the brand owner's operations. By doing so, each encoding device would be allocated a distinct sector of serial numbers from within the total serial numbers available using the 38-bits of memory reserved for it. This enables each encoder to reliably ensure the uniqueness of the EPC value encoded into every RFID tag commissioned by it. Uniqueness is guaranteed for each item within an object class and is "baked in" at the machine code (binary) level. This also allows the EPC of the tag to be read by a reader to identify the particular encoder that encoded the tag using the machine level encoding.

19. These benefits can be obtained without requiring constant communication with a central database for ensuring uniqueness of encoded EPC data and, thereby, reduces or eliminates

certain communications delays during encoding operations and reduces the demand on the master server and database allocating EPC encoding data.

20. The use of MSBs as claimed in the '967 Patent is scalable for application in instances in which a retail brand owner ("RBO") sources RFID tags for item-level tagging from multiple suppliers which are applied to retail items simultaneously at many disparate factory locations. For example, an RBO may require an RFID tag provider to incorporate a specific MSB sequence at the leading bits for every tag it produces. By implementing a particular sequence of MSBs, a sector (or subset) of available serial number identifier values is delineated for use by the commissioning authority to which the particular MSB sequence is allocated. All EPC data encoded thereby will be inclusive of the MSBs and duplicates encodings to those made by any other commissioning authority are avoided. This can be applied by RBOs with respect to each RFID tag provider from which it sources item-level RFID tags to ensure that two suppliers (CCL and Avery Dennison, e.g.) will not produce duplicate RFID tags, even if simultaneously tagging like items at different locations and without any single central authority overseeing the concurrent operations of both suppliers.

IV. THE PATENT-IN-SUIT

21. On October 24, 2017, U.S. Patent No. 9,798,967 ("the '967 Patent") was duly and legally issued for "SYSTEMS, METHODS, AND DEVICES FOR COMMISSIONING WIRELESS SENSORS" to Mr. Clarke McAllister, the inventor. The claims of the '967 Patent have been found, as a matter of law, to be entitled to a claim of priority to the filing date of parent Non-Provisional Patent Application No. 12/124,768, filed on May 21, 2008. The '967 Patent was subsequently assigned to Mr. McAllister's company, ADASA.

22. Upon its issuance, the '967 Patent was subject to *ex parte* reexamination, Reexamination Request No. 90/014,052, petitioned for by Avery Dennison Corporation on November 29, 2017. The reexamination proceeding confirmed the patentability of all claims of the '967 Patent and a Reexamination Certificate was issued by the USPTO on July 30, 2018. A true and correct copy of the '967 Patent with the appended Reexamination Certificate is attached hereto as Exhibit A. Certain amendments to the claims were entered during reexamination to clarify the scope of the inventions claimed. These clarifying amendments were deemed non-substantive by the Examiners at the USPTO. This finding was subsequently affirmed as a matter of law in patent infringement proceedings before the Federal District Court for the District of Oregon.

23. Plaintiff is the owner of the '967 Patent with the exclusive right to enforce the '967 Patent against infringers, and collect damages for all relevant times, including the right to prosecute this action.

24. Plaintiff or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the '967 Patent. More specifically, to the extent Plaintiff has practiced the inventions claimed in the '967 Patent, Plaintiff has complied with the marking requirement of 35 USC 287(a). Further, to the extent Plaintiff has permitted others to practice the inventions claimed in the '967 Patent under limited license, compliance with 35 USC 287(a) was required of all such licensees.

25. The '967 Patent generally relates to commissioned radio frequency identification ("RFID") transponders (or tags), and systems and methods for making and using the same. The '967 Patent teaches and claims an RFID transponder comprising an integrated circuit chip having an encoded memory structure operable to ensure uniqueness of the encoded RFID transponder.

26. The inventions claimed in the '967 Patent provided advantages over existing RFID tags, and for systems and methods for commissioning the same. Namely, practice of the inventions claimed accommodated "on-demand" encoding operations "with no external authorizations or queries required on a transponder-by-transponder basis." This enabled many simultaneous RFID tag commissioning operations to proceed without the need for continuous connectivity to a central database, and without worry of inadvertently creating duplicate RFID tags.

27. Eliminating the need for a continuous connection to a central database while still ensuring uniqueness advantageously reduces or eliminates delays in existing commissioning processes attendant to the then-existing requirement for continuous communication with a central database. Practice of the inventions claimed in the '967 Patent permits commissioning operations to continue at times when access to a central database is unavailable, including during network connection failures and in instances where a brand owner or manufacturer partners with more than one RFID tag provider across its global operations. Elimination of these points of failure within RFID tag commissioning processes improves operational effectiveness and efficiency, while providing an additional safeguard within commissioning systems for guaranteeing uniqueness of commissioned RFID tags.

V. ADOPTION OF THE '967 PATENT BY THE RFID INDUSTRY

28. In the years after Mr. McAllister originally filed for patent protection for his invention, his inventions were widely adopted throughout the RFID industry by tag providers in response to customer "mandates" requiring use of McAllister's innovations. Mr. McAllister initially sought to enforce his valuable patent rights through licensing RFID tag providers known to infringe his patent rights, but those efforts were consistently rebuffed. Mr. McAllister has been forced to enforce his valuable intellectual property rights through litigation.

29. ADASA has successfully done so. ADASA filed a lawsuit against Avery Dennison Corporation ("Avery Dennison") alleging patent infringement of claims of the '967 Patent (the "Avery Dennison Litigation"). In 2021, a jury found unanimously that Avery Dennison infringed claims of the '967 Patent in connection with Avery Dennison's making and selling RFID tags comprising the inventive hardware-based data structure claimed within the '967 Patent. Even before the jury trial, the Court found infringement as a matter of law with respect to a first set of accused RFID tag products. Infringing RFID tags represented approximately half of Avery Dennison's disclosed RFID tag sales.

30. The Avery Dennison Litigation jury found $0.0045 per RFID tag was a reasonable royalty to account for Avery Dennison's infringement. However, this jury rate was artificially repressed due to discovery misconduct at trial by Avery Dennison when Avery Dennison failed to properly disclose all infringing product until after trial. Avery Dennison was subsequently sanctioned for this misconduct and the court in that matter applied a post-trial rate of $0.009 per tag, which was consistent with the testimony of ADASA's damages expert and ADASA's previous licensing history. Applying the improperly reduced $0.0045 royalty to the large volume of infringing tags that were actually disclosed at trial made and sold by Avery Dennison yielded an award of over $35 million in damages. Additional damages increased the total award to over $ 62 million.

31. Every defense raised by Avery Dennison was rejected, including Avery Dennison's multiple challenges to the validity of the asserted claims of the '967 Patent which were found deficient in each of three separate venues: (a) in front of the USPTO; (b) as a matter of law before the Court during the Avery Dennison Litigation; and (c) additionally before a jury.

32. First, during the pendency of the Avery Dennison Litigation, Avery Dennison petitioned the United States Patent and Trademark Office ("USPTO") to invalidate the claims of the '967 Patent in light of four alleged prior art references. The USPTO entered a clarifying amendment within the challenged claims and found all claims of the '967 Patent patentable over all known prior art, whether raised during the reexamination proceeding or identified during the original prosecution. This finding was made by a panel comprising three Examiners. At the close of this *ex parte* reexamination, a Reexamination Certificate was entered for the '967 Patent affirming the patentability of all claims, as presented in the Reexamination Certificate. These claims were ultimately found to be infringed by Avery Dennison.

33. Next, pre-jury trial, the Avery Dennison Litigation Court ruled that several of Avery Dennison's asserted invalidity defenses failed as a matter of law. More specifically, the Court rejected Avery Dennison's arguments that the '967 Patent was invalid as anticipated or obvious, to the point that Avery Dennison intentionally chose not to proceed with any invalidity theories at trial with the jury. The Court also found that ADASA's patent was entitled to its asserted May 2008 priority date, which placed it well before many industry manufacturers ultimately adopted the technology.

34. The Court also determined that the claims of the '967 Patent were addressed to patent-eligible subject matter under the *Alice*/Section 101 legal standard, specifically holding that claim 1 of the '967 Patent was not directed to an abstract idea but rather to "an encoded RFID transponder implemented with a memory structure accommodating a specific hardware-based number scheme." This determination was subsequently affirmed by the Federal Circuit, which found the asserted claims "directed to a specific, hardware-based RFID serial number data structure designed to enable technological improvements to the commissioning process" and thus

directed toward patent-eligible subject matter under both steps of the legal analysis. Avery Dennison's petition for review of the Federal Circuit Court decision by the United States Supreme Court was denied.

35. Finally, remand proceedings were held in July 2023 on two invalidity grounds not presented during the original trial. The remand jury unanimously rejected these last remaining defenses and, again, affirmed the validity of the asserted claims of the '967 Patent.

36. As a result of continuing damages that accrued during the appellate and remand process, the amended final judgment against Avery Dennison for its infringement of the claims of the '967 Patent totaled more than $88M. This multi-year result confirms the value of Mr. McAllister's inventions to the RFID industry.

VI. THE ACCUSED PRODUCTS OF CCL

37. Plaintiff incorporates by reference the preceding Paragraphs of this Complaint as if fully set forth herein.

38. CCL acquired Checkpoint Systems Inc. in 2016 and has operated it as a wholly owned business segment of CCL since that time.[4] CCL describes its Checkpoint division to be "a leading manufacturer of technology-driven loss-prevention, inventory management labelling ***and tagging solutions (RF and RFID capable)*** to global apparel brand owners and omni channel retailers." Exh. C at 2, 9. Checkpoint makes, offers for sale, and sells "RFID solutions, including inventory management software, to the retail and apparel industry." Exh. C at 20.

39. Its primary product lines include its Apparel Labeling Solutions (ALS) comprising apparel labels and tags, some of which are RFID capable. Exh. C at 25; Exh. E at 20. Through

[4] Exh. B (Reuters article announcing acquisition); Exh. C (2017 Annual Report) at 10, 13, 68; Exh. E at 14; https://cclind.com/segments/segments/#checkpoint

Checkpoint, CCL "sells directly to retailers or apparel manufacturers and competes with other global retail labeling companies" within its home market in North America and elsewhere. Exh. C at 25, 66; Exh. E at 20.

40. CCL's Annual Information Form for 2023,[5] dated February 22, 2024, affirms that "Checkpoint operates 23 manufacturing facilities, seven distribution facilities and three product and software development centers globally [, and its] North American operations are supported by one manufacturing facility and one development cent[er] in the United States."

41. Customers of CCL's RFID label products offered under the Checkpoint brand name include: Target,[6] Walmart,[7] Decathlon, Primark, Speedo, Cantebury, Inditex, Urban Outfitters,[8] and Uniqlo,[9] among others.

42. CCL markets itself as being "vertically integrated" with respect to the RFID solutions it offers. CCL "control[s] everything in-house – including [its] print & encoding machines & [its] own software – not just [its] inlays." Exh. D. CCL's software includes its own data management systems for generating encoding data for RFID tags provided to its customers, done through its CheckNet global ordering platform. CheckNet is "an adaptable and scalable online web-based ordering platform" through which CCL's RFID customers can "place orders with our without variable data" from anywhere in the world. Exh. D. CheckNet "monitors and maintains number management" for encoded RFID tags CCL sells to its customers. Exh. D.

43. CCL sells encoded RFID tags directly its customers which are encoded by CCL at one or more of its Service Bureau locations, then are delivered to customers for item-level tagging.

[5] Exh. E at 20, 31.
[6] Exh. B at 1.
[7] Exh. D at 1.
[8] Exh. F
[9] See, Checkpoint website landing page at URL: https://checkpointsystems.com/

Exh. G at 3. CCL also provides In-House Plant Printing Applications for its customers, allowing them to print and encode RFID tags in their own facilities from anywhere around the world, including at least in part within this district. Exh. G.

44. CCL fulfills customer orders for encoded RFID labels and tags, encoded with EPC data formatted in compliance with EPC Global standards using CCL's Number Management Solutions. Exh. G. "For apparel retailers and their suppliers, the Open EPC Number Management Solution is the most flexible and cost-efficient way to manage complex EPC number schemes, in order to harness the full power and capabilities of RFID for item-level visibility." Exh. G. It provides for "Central management and provisioning of EPC numbers by SKU" and for "Global distribution of EPC numbers to consuming applications, including service bureaus and in-house printing applications." Exh. G.

45. Regardless of which sales channel is used to sell its RFID tag products and services, CCL does not identify specific RFID tag / label configurations by product name or model number. Rather, CCL's customers select from among various inlays offered by CCL, which are then incorporated into a sticker, hangtag, sewn-in, or CARE label in accordance with the customer's specifications made when submitting a tag order. The accused products therefore comprise any of the following inlays converted to any of a sticker, hangtag, sewn-in, or CARE label by CCL: Bunker, Cyclone, Due Mini, Kompasu, Kona, Leveche, Njord, Pali, Santana, Sirocco, Spiro, Triumph, Tyfung, Uno, Vortex/Breeze, and Zephyr. Exh. H.

46. These converted RFID tags comprise a substrate, an antenna, and an RFID integrated circuit chip (the inlay) coupled to the antenna. Exh. D at 4; Exhs. H, I. CCL encodes the integrated circuit chips of the tags and labels pursuant to GS1 standards and guidelines and in accordance with the specifications and schemas selected by, upon information and belief, the

managing organization responsible for the item, *i.e.,* brand-owners based on an CCL proposal or selected directly by CCL. Exh. D

47. CCL encodes the RFID tags and labels with an EPC. The EPC is encoded as a binary encoding within the memory structure of the RFID integrated circuit chip of the tag having an object class information space and a unique serial number space. The object class information space is encoded with the object class information for an item and the unique serial number space is encoded with a unique serial number for that specific item within that object class. A limited number of most significant bits of the serial number space within the EPC binary encoding is fixed to uniquely correspond to a limited number of most significant bits assigned to the block of serial numbers that was allocated to the encoder by the brand owner and/or by agreement between the brand owner and CCL or by delegation to CCL. The remaining bits of lesser significance are encoded to form one unique serial number selected from the range of serial numbers within the block allocated to the encoder, which can be issued by the encoder in linear sequence, randomly, or otherwise in accordance with the specifications from by the managing organization responsible for the item or as determined by delegation to CCL.

48. In particular, CCL encodes an EPC SGTIN-96 binary encoding in the memory bank of the RFID tags and labels, with the unique EPC being encoded in binary form. The 38-bit serial number portion of the encoded EPC comprises the particular set of most significant bits corresponding to the most significant bits allocated to the encoder for the object class of the items with which the RFID tags and labels are to be used. For example, schemas and scanned RFID tags associated with various Global Company Prefixes of known CCL customers reflect that up to 18 most significant bits of the 38-bit serial number section are fixed to correspond to the most significant bits of an allocated block of serial numbers. The remaining 20 or more bits of lesser

significance are encoded with one unique serial number instance from the allocated block of serial numbers.

49. Upon information and belief, CCL's CheckNet software is operable by CCL personnel and CCL's in-house printing customers, respectively, to submit part orders for encoding RFID tags. Business rules, industry standards, and other customer-specific requirements are included with ordering information and used by CCL's software to generate and/or log EPCs used to make commissioned RFID tags. Further, upon information and belief, this software resides on CCL database equipment resident at its Checkpoint headquarters located in Thorofare, New Jersey and this ordering information is stored and is accessible through CCL's CheckNet software in Thorofare, New Jersey.[10]

50. The specific encoding format(s) implemented by brand owners detailing the particular EPC structure(s) used thereby to commission RFID tags are not publicly available. Nonetheless, specifics relating to these formats may be discerned using an RFID reader to scan and collect EPCs encoded into the memories of RFID tags affixed to goods displayed in retail stores.

51. As an example of CCL's encoding products and services, publicly available documents and information confirm CCL as an approved RFID provider for Walmart and its suppliers. ADASA compiled EPC encoding data from RFID tags in use in Walmart stores in 2017, 2020, and in September 2023. The EPC data obtained confirms that many of the RFID tags in use in Walmart stores infringe claims of the '967 Patent, including claim 1. More specifically, the scanned data confirms widespread use of ADASA's claimed "most significant bits" within the serial number space of scanned RFID tags. In view of CCL being one of a select few providers of

[10] Exh. K (CheckNet Ordering Information and Order Status USA).

RFID tags and inlays for Walmart and its suppliers, upon information and belief, the scanned RFID tag data demonstrates the making and selling of infringing RFID tags by CCL for use by Walmart and/or Walmart's suppliers.

52. By way of example, scanned tag data was manually collected from item-level RFID tags on retail products on the shelves in eight Walmart stores. This data was collected in Oregon in 2023. The data was filtered to include only EPCs containing Customer Prefix identifiers owned by Walmart Stores, Inc. The resulting data corresponded to several hundred separate GTINs (i.e., separate product types) and totaled 9,536 tag reads (i.e., 9,536 individually tagged products). Inspection of the respective data stored in the 38-bit serial number space for each of these encodings shows the use of MSBs.

53. The scanned data shows that every tag scanned for nearly half of the GTINs comprise the exact same data sequence within the leading 18-bits of the serial number space. More specifically, tags corresponding to 405 separate GTINs exclusively comprised an identical 18-bit sequence of leading bits. This is not coincidence as over 262,000 sequences of '1's and '0's can be generated over 18-bits of memory space. Yet, the scanned data reveals that every tag scanned across a wide range of product types taken from eight different stores throughout Oregon began with the exact same 18-bit sequence.

54. The data revealed three additional 18-bit data sequences that were exclusively used in connection with every RFID tag for a significant amount of GTINs. Those 18-bit sequences were implemented with: 1,633 tags corresponding to 172 separate GTINs; 1,402 tags corresponding to 171 separate GTINs; and 792 tags corresponding to 102 separate GTINs. Altogether, these four leading bit sequences correspond to nearly 86% of all scanned tags.

55. In addition to the foregoing, analysis of the trailing 20-bit sequences of data for the scanned tags further confirms that the consistent use of four specific leading bit sequences is not happenstance. While the data within the first 18-bits is static, the data within the trailing 20-bits shows remarkable variation throughout the remaining 20-bit range. This high variability is observed even in instances where the quantity of tags scanned for a particular GTIN is low, often fewer than ten, as shown in the table below:

GTIN	Scraped Serial Number Data Stored[11]	# Tags
00681131022446	0101101101000101000**********	9
00681131308298	0101101101000101000**********	8
00681131308335	0101101101000101000**********	14
00681131310161	0101101101000101000**********	36
00681131310918	0101101101000101000**********	34
00681131312455	0101101101000101000**********	20
00681131358668	0101101101000101000**********	15
00681131358859	0101101101000101000**********	11
00681131359306	0101101101000101000**********	7
00681131360081	0101101101000101000**********	9
00681131414081	0101101101000101000**********	64
00681131415521	0101101101000101000**********	18
00681131422284	0101101101000101000**********	6
00681131310260	0101101101000101000********1*1******1*	5
00681131357807	0101101101000101000********00**********	8
00681131310123	0101101101000101000********1**********	14
00681131310550	0101101101000101000*******0**********	8
00681131359023	0101101101000101000*******0**********	7
00681131397742	0101101101000101000***0****1**********	8
00681131069496	0101101101000101000***0*1**************	13
00681131308434	0101101101000101000***11**0**********	13

[11] A ‘0’ value within bit sequence indicates that every tag for the corresponding GTIN identified included a ‘0’ value for that memory location. Likewise, a ‘1’ indicates that all scanned tags for that GTIN had a ‘1’ value stored in that memory location. Conversely, an ‘*’ indicates that the data in that location varied among ‘0’s and ‘1’s.

00681131308328	0101101101000101 00**0**********	10
00681131414074	0101101101000101 00**0*00********	20
00681131308748	0101101101000101 00**1**********	9

56. The low number of scanned tags for each respective GTIN in combination with the consistently high variability of the data stored in the trailing 20-bits of the serial number space strongly suggest that the values stored in the trailing bits are not allocated sequentially. Taken in concert, the scanned data confirms that the serial number space is encoded with a static sequence of most significant bits followed by a randomly allocated (and not repeated) sequence of lesser significant bits at the trailing end. Use of this structure within the serial number space of the RFID tag memory practices the limitations regarding the use of most significant bits within the serial number space of the RFID tags claimed in the '967 Patent.

57. Given CCL encodes RFID transponders for at least Walmart in this fashion, while not all of the scanned RFID tags were necessarily encoded just by CCL, the consistent and frequent use of these infringing encoded tags demonstrates CCL is encoding RFID transponders in violation of the claims of the '967 Patent. To the extent CCL encodes any of the tags and labels identified in the above paragraphs of this complaint or additional RFID tags and labels not identified therein for any additional customers or clients that use the format specified herein, CCL has infringed the identified claims of the '967 Patent.

VII. CLAIMS FOR RELIEF (Patent Infringement)

58. Plaintiff incorporates by reference the preceding Paragraphs of this Complaint as if fully set forth herein.

A. Direct Infringement by CCL under 35 U.S.C. § 271(a)

59. CCL directly infringes claims of the '967 Patent pursuant to 35 U.S.C. § 271(a), either literally or under the doctrine of equivalents, to the extent it uses, sells, offers for sale in the

U.S., or imports into the U.S. encoded RFID tags and labels that implement the data structure claimed in at least claim 1 of the '967 Patent. CCL makes and sells these infringing RFID tag products and services to its customers, including retail brand owners (RBOs), manufacturers, distributors, retailers and other end users.

60. More specifically, CCL sells or offers for sale encoded RFID tags to its customers that are made at its Checkpoint Service Bureau locations for use in item-level product tagging. The encoded data is typically formatted in accordance with industry standards, including GS1 standardized EPC formats (e.g., SGTIN-96), to include an object class information space and a unique serial number space. Further, for at least some of its encoded RFID tag customers, customer serialization requirements and/or CCL's internal serialization protocols require that the unique serial number space implement a data structure inclusive of a sequence of MSBs and remaining bits of lesser significance. Sales and offers to sell encoded RFID tags implementing this encoded data structure within the serial number space by CCL directly infringes at least claim 1 of the '967 Patent.

61. CCL's Checkpoint division maintains its headquarters within the U.S., in Thorofare, New Jersey. Upon information and belief, it negotiates and enters sales contracts or other master agreements with its customers under which part orders for encoded RFID tags are placed and consummated from this location. The location of sale is within the United States for all such RFID tags offered for sale or sold by CCL through its Checkpoint division pursuant to these sales contracts or other master agreements that have been negotiated or entered into in the U.S., regardless of where they are physically made, encoded, or delivered to a customer.

62. CCL Service Bureau products are encoded by CCL personnel directly at CCL Service Bureau locations. RFID tags and labels sold by in house printing applications are encoded

using CCL hardware and software at customer locations. For in-house customers, CCL supplies all necessary hardware, software, the RFID transponders, and encoded data for encoding of the RFID transponder to occur at a customer facility. Encoding is affected in accordance with schema and formats developed by CCL and proposed by CCL.

63. For all CCL customers, whether service bureau or in-house customers, upon information and belief, CCL and its customers enter purchase or supply agreements under which subsequent part orders are made. Upon information and belief, following formation of an agreement under which formats, schemas, and prices for the RFID tags and labels are set, CCL customers purchase encoded RFID tags and labels via submission of part orders through software and an online interface (such as CheckNet) accessible by CCL's personnel or customers. Upon information and belief, part order data is directed via CCL's software to its U.S. offices (such as its headquarters in New Jersey) for generating and transmitting all of the encoding data for commissioning the RFID tags and labels that were ordered. This encoding data is then transmitted to CCL's printer/encoders at the encoding location to commission the ordered RFID tags and labels and fill the part order. All encoded RFID tags and labels made or sold by CCL comprise data sent from its U.S. offices (such as its headquarters in New Jersey), which is generated in response to receipt of part orders.

64. Upon information and belief, CCL's agreements with its customers are negotiated in the U.S. by CCL personnel. These agreements detail the procedures to be employed for ensuring that all RFID tags and labels sold are encoded with unique object numbers comprising object class information and a serial number utilizing most significant bits, among other general terms. The negotiation of agreements often includes submission of an initial proposal by CCL to a potential

customer that proposes schemas and formats to be used to generate unique object numbers to be encoded into RFID tags and labels sold thereunder.

65. Upon information and belief, in its customer proposals, CCL emphasizes the importance of uniqueness within item level RFID tagging systems. Further, CCL touts its service bureau operations and global network, operating from at least from its item-level RFID solutions headquarters in New Jersey, as providing unique object numbers, regardless of whether encoding is affected by CCL at one of its Service Bureaus or by an CCL customer using In-House printing.

66. In accordance with this process for setting up and processing part orders following execution of a purchase or supply agreement with it customers, CCL offers to sell and sells its RFID tags and labels from the United States, regardless of where encoding occurs. However, upon information and belief, the ordering and invoicing process takes place at CCL's U.S. RFID headquarters in New Jersey. This scheme of receiving and fulfilling individual part orders for its customers therefore represents an independent basis for ADASA infringement allegations against CCL under 35 U.S.C. § 271(a).

B. Direct Infringement by CCL under 35 U.S.C. § 271(f)

67. Additionally, upon information and belief, CCL is liable under 35 U.S.C. § 271(f) for infringement of the '967 Patent, either literally or under the doctrine of equivalents, because it provides from the United States encoding data, including EPCs, comprising unique object numbers implementing the unique structure identified in the claims of the '967 Patent from its U.S.-based headquarters which are transmitted to foreign encoding locations operated by CCL or by its customers at the direction of CCL. The unique object numbers are provided with the intent that they be combined with uncommissioned RFID tags and labels to make infringing RFID tags and labels.

68. The unique object numbers are specially made and/or especially adapted for use in accordance with the inventions claimed in the '967 Patent. Upon information and belief, each data file comprising the unique object numbers is intended for use and used only to commission RFID tags and labels.

69. The unique object numbers transmitted are not staple articles or commodities of commerce suitable for substantial noninfringing use. They are known to CCL to be specially made or especially adapted for use in accordance with the inventions claimed in the '967 Patent since at least October 6, 2017 or, alternatively, since the filing of the original complaint in this litigation.

70. ADASA has been damaged as a result of CCL's infringing conduct. CCL is, thus, liable to Plaintiff in an amount that adequately compensates ADASA for CCL's infringement, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

C. Indirect Infringement Under 35 U.S.C. §§ 271(b), (c)

71. Additionally, CCL is liable under 35 U.S.C. §§ 271(b) and (c) for indirect infringement of the '967 Patent, either literally or under the doctrine of equivalents, because it actively induces and/or contributes to the direct infringement of the '967 Patent by its customers who make, use, and/or import encoded RFID tags and labels that use the unique encoded structure identified in the claims of the '967 Patent.

72. For its Service Bureau customers, CCL provides RFID tags and labels encoded with unique object numbers comprising object class information and a serial number utilizing most significant bits to its customers who then import to and/or use the infringing RFID transponders in the United States for item-level tracking and inventory management. CCL's infringing RFID transponder products are especially designed for use via affixing them to goods for scanning to

track those goods as they travel through the stream of commerce. This item-level identification and tracking is advertised as providing quick and accurate inventory information for CCL's customers.

73. CCL's customers are instructed to and do affix the infringing RFID transponders to their goods for tracking and inventory purposes, whereby each instance of scanning (i.e., reading) the encoded information stored on an infringing RFID transponder constitutes a use thereof. CCL markets and sells RFID readers to its customers that are used for item tracking and inventorying using the information read from CCL's infringing RFID tags, both through its CheckNet platform.

74. Such importing and/or use of the infringing RFID tags and labels by CCL's customers directly infringes at least claim 1 of the '967 Patent. CCL makes and sells its infringing RFID tags and labels knowing that they are especially designed for and marketed for such use by its customers to affect item-level tracking and rapid inventorying through use of ADASA's patented technology.

75. CCL makes and sells its infringing RFID tags and labels knowing at least some will be imported to and used in the United States by CCL's customers. For at least some of its customers, such as those having significant or, perhaps, exclusive operations in the United States, CCL makes and sells its infringing RFID tags and labels thereto knowing that most or all will be imported to and used in the United States. CCL regularly touts its service bureau worldwide presence in allowing customers to tag RFID transponders in multiple places, all while having its RFID headquarters within this district.

76. CCL has had actual knowledge of ADASA's claims of patent infringement against CCL consistent with those presented herein ADASA provided a letter outlining CCL's

infringement of the '967 Patent on April 24, 2024. Exh. I. That letter provided specific reference to CCL that its products had been and continue to infringe at least claim 1 of the '967 Patent and provided specific analysis therein. CCL further received notice of ADASA's allegations with the filing of this complaint.

77. ADASA has been damaged as a result of CCL's infringing conduct. CCL is, thus, liable to Plaintiff in an amount that adequately compensates ADASA for CCL's infringement, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

78. ADASA has satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the '967 Patent and therefore is entitled to past damages for SML's infringement. More specifically, to the extent Plaintiff has practiced the inventions claimed in the '967 Patent, Plaintiff has complied with the marking requirement of 35 USC 287(a). Further, to the extent Plaintiff has permitted others to practice the inventions claimed in the '967 Patent under limited license, compliance with 35 USC 287(a) was required of all such licensees.

79. With regard to each theory of infringement presented herein, CCL's infringement of the '967 Patent has been willful, both before the filing of this complaint and continues to be so after filing.

80. Further, upon information and belief, CCL was monitoring ADASA and the '967 Patent through the well-publicized allegations in the above-mentioned Avery Dennison case, which went all the way to the United States Supreme Court. That case was tracked by industry sources, including upon information and belief CCL as the case proceeded and as demonstrated by United States Supreme Court amicus briefs filed by RFID industry entities.

81. Since at least April 24, 2024, CCL's infringement of the '967 patent has been willful, deliberate and intentional by committing these acts of infringement with knowledge of the '967 patent, and after acquiring knowledge of the '967 patent, CCL has continued to commit these acts of infringement knowing, or at worst should have known, that its conduct amounted to infringement of the '967 patent, and thus CCL has acted in reckless disregard of ADASA's patent rights. Since at least April 24, 2024, CCL has been aware of the unjustifiably high risk that its actions constituted and continue to constitute infringement of the '967 patent, and that the '967 Patent is valid.

82. To the extent CCL was not following along with the industry-wide importance of the Avery Dennison case, CCL would have been acting willfully blind to its infringement. More specifically, given the '967 Patent's early priority date before the major manufacturers in the RFID encoding industry (such as CCL) were using ADASA's now-widely implemented technology, CCL would have subjectively believed that there was a high probability that relevant patents, such as ADASA's 967 Patent, directly impacted their ability to encode and sell the RFID transponders that it does today, as described above. Additionally, to the extent that CCL was not following the Avery Dennison Litigation and the '967 Patent, it would have been deliberately taking actions to avoid learning about such facts. By ignoring such widely known news and developments, CCL was intentionally willfully blind to its infringement.

83. Because of CCL's past and ongoing willful infringement, ADASA is entitled to enhanced damages under 35 U.S.C. § 284.

VIII. PRAYER FOR RELIEF

Plaintiff requests that the Court find in its favor and against CCL, and that the Court grant Plaintiff the following relief:

a. Judgment that one or more claims of the '967 Patent have been infringed, either literally and/or under the doctrine of equivalents, by CCL, and/or judgment that one or more claims of the '967 Patent have been directly infringed by others and indirectly infringed by CCL, to the extent CCL contributed to or actively induced such direct infringement by others;

b. Judgment that CCL account for and pay to Plaintiff all damages to and costs incurred by Plaintiff because of CCL's infringing activities and other conduct complained of herein;

c. An award of post judgment royalty to compensate for future infringement;

d. That Plaintiff be granted pre-judgment and post-judgment interest on the damages caused to it by reason of CCL's infringing activities and other conduct complained of herein;

e. That this Court declare this an exceptional case and award Plaintiff its reasonable attorney's fees and costs in accordance with 35 U.S.C. § 285;

f. That Plaintiff is entitled to enhanced damages under 35 U.S.C. § 284; and

g. That Plaintiff be granted such other and further relief as the Court may deem just and proper under the circumstances.

JURY DEMAND

Plaintiff hereby requests a trial by jury pursuant to Rule 38 of the Federal Rules of Civil Procedure.

Dated: August ___, 2024.

Respectfully submitted,

/s/ William J. Pinilis

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